



## **PROGRESS REPORT NO. 157**

**TO:** Robert Tan, U.S. Environmental Protection Agency (EPA) – via Email  
Kathryn Cerise, EPA – via Email

**FROM:** Kris McCaig, Teck American Incorporated (TAI)

**Cc:** Denise Mills, TAI – via Email  
Monica Tonel, EPA – via Email

**DATE:** August 1, 2019

**FILE NO:** 01-773180-000

**RE:** Upper Columbia River (UCR) Remedial Investigation/Feasibility Study  
(RI/FS) - Progress Report No. 157 Month Ending July 2019

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Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the aforementioned Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Soil Amendment Technology Evaluation Study (SATES) – TAI continued coordination with the SATES team and Kira Lynch, Superfund Technology Liaison with the Office of Research and Development, Office of Science and Policy during the month.

TAI continued coordinating with Ohio State University (OSU) laboratory to perform the bench-scale testing of the selected soil amendments. OSU has received the soluble phosphate, wood ash, biochar, and compost for the tests. TAI continued working with the biosolids supplier to obtain the other material needed for the bench tests.

On July 23, 2019, TAI submitted Addendum No. 1 to the Phase II Work Plan summarizing additional chemical analyses that TAI will perform on the five amendments selected for the bench-scale testing as an additional screening step and soil samples from the test pots during the tests. Kira Lynch sent an email indicating EPA's approval of the addendum on July 23, 2019.

OSU completed the study to evaluate the proposed phosphate application rates to use in the Phase II bench tests. This study was designed to identify optimum low and high phosphorous application rates. TAI will submit a summary report with the results to EPA in early August 2019.

TAI's consultant, Arcadis, collected soil from one of the SATES test plots for EPA's biochar project on July 18, 2019. The samples were shipped from Colville, WA to the EPA Office of Research and Development laboratory in Corvallis, OR on July 18, 2019, and received by the lab on July 19 (four buckets) and July 22 (two buckets).

#### Baseline Ecological Risk Assessment:

Soil Toxicity Reference Values (TRVs) – TAI worked on completing analyses for Steps 1 through 5 (“Characterize Site Metals Concentrations Relative to Both Eco-SSLs and Background Concentrations”), as outlined in the memorandum titled “Final Approach for Evaluating the Potential for Metals Toxicity to Plants and Invertebrates in the Baseline Ecological Risk Assessment (May 2019).” TAI had committed to deliver the technical memorandum documenting the completion of Steps 1 through Step 5 by July 31, 2019. However, the analysis is based on the background threshold values (BTVs) for soil metals concentrations provided in the draft background assessment technical memorandum that we submitted on June 28, 2019 and is currently under EPA review. Given that the BTVs may change based on EPA's comments and subsequent revision by TAI and EPA review, TAI proposed, in an email on July 24, 2019, to extend the schedule for submitting the steps 1-5 memorandum until after the BTVs have been approved. EPA sent an email to TAI on July 25 with agreement to extend the schedule.

Wildlife TRVs – TAI submitted the Final UCR Wildlife TRV Document to EPA on July 8, 2019.

Sediment and Porewater TRVs – TAI and EPA held a Sediment and Porewater TRV workshop in Spokane on March 5-6, 2019 to work through EPA's comments on the October 2019 draft final TRV document. Follow up actions continued during the month on July.

Chemicals of Potential Concern (COPC) Refinement Document – TAI received a letter from EPA on July 11, 2019 with conditional approval of the Draft Final COPC Refinement Document delivered to EPA on May 31, 2019. TAI agreed to the revisions required in the conditional approval and is finalizing the document for submittal to EPA on or before August 12, 2019.

2018 Phase 3 Sediment Study Sediment Facies Mapping – TAI conducted the sediment facies mapping field work not completed in 2018, between July 8 and July 18, 2019 and began quality assurance quality control review of the data.

2019 Phase 3 Sediment Study – TAI received a letter from EPA on July 10, 2019 with comments on the draft quality assurance project plan (QAPP) for the 2019 Phase 3 Sediment Study delivered to EPA on June 17, 2019. On July 11, 2019, TAI requested to have a call with EPA on Friday July 12, 2019 to discuss the comments. Because that Friday, EPA's contractor was on travel, EPA requested TAI send questions regarding clarification needed on EPA comments so the issues could be settled that day. TAI responded it would not be practicable to resolve the issues that day and would follow up with EPA early the

following week. TAI received a letter on July 15, 2019 from Mr. David Einan, indicating that EPA would be completing the DQOs for the QAPP. TAI received the final DQOs from EPA via electronic mail on July 18, 2019.

Human Health Risk Assessment (HHRA):

TAI submitted Technical Memorandum with Comments on the “Draft Upland Baseline Human Health Risk Assessment: Upper Columbia River Site” – Arsenic Dose Response Assessment to EPA on July 2, 2019.

TAI received the Final Data Analysis Reports for the Recreational Use Survey and the Tribal Consumption and Resource Use Survey via electronic mail messages from EPA on July 12, 2019.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4501.